

MAJORIS FFR117C - 8229

Polypropylene

AD majoris

Message:

FFR117C - 8229 is part of a new material family with low halogen no blooming flame retardant, an improved stiffness, high gloss, antistatic, UV-resistance and low war page behaviour. Intended for injection moulding. The product is available in natural (FFR117C) but other colours can be provided on request.

APPLICATIONS
FFR117C - 8229 is recommended for indoor or outdoor electrical and lighting applications like plugs, sockets, connectors, capacitor housings, small boxes and fluorescent lamp bases where a higher stiffness, chemical resistance and flammability are required.

General Information			
Additive	Antistatic		
	Flame Retardant		
Features	Antistatic		
	Flame Retardant		
	Good Chemical Resistance		
	Good UV Resistance		
	High Gloss		
	Low Halogen Content		
	Low Warpage		
	Non-Blooming		
	Recyclable Material		
Uses	Connectors		
	Electrical Housing		
	Electrical/Electronic Applications		
	Lighting Applications		
	Outdoor Applications		
Appearance	Colors Available		
	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	15	g/10 min	ISO 1133
Spiral Flow ¹	95.0	cm	
Molding Shrinkage			ISO 294-4
Across Flow	1.2	%	

Flow : 2.00 mm	1.1	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2000	MPa	ISO 527-2
Tensile Stress			
Yield	28.0	MPa	ISO 527-2/50
Break	19.0	MPa	ISO 527-2
Tensile Strain			
Yield	4.5	%	ISO 527-2/50
Break	40	%	ISO 527-2
Flexural Modulus	1900	MPa	ISO 178
Flexural Stress			ISO 178
--	44.0	MPa	
23°C	39.0	MPa	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-20°C	2.1	kJ/m ²	
23°C	3.8	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-20°C	29	kJ/m ²	
23°C	72	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	104	°C	ISO 75-2/B
1.8 MPa, Unannealed	58.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	153	°C	ISO 306/A
--	85.0	°C	ISO 306/B
Ball Pressure Test (135°C)	Pass		IEC 60335-1
RTI Elec	110	°C	UL 746
RTI Imp	115	°C	UL 746
RTI Str	115	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.5E+15	ohms	IEC 60093
Volume Resistivity	8.8E+16	ohms · cm	IEC 60093
Electric Strength	40	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.35		
1 MHz	2.34		
100 MHz	2.36		
Dissipation Factor			IEC 60250
50 Hz	1.3E-3		
1 kHz	1.0E-3		

100 kHz	2.3E-3		
Arc Resistance (3.00 mm)	PLC 5		ASTM D495
Comparative Tracking Index (CTI) (3.00 mm)	PLC 0		UL 746
Comparative Tracking Index			IEC 60112
--	> 600	V	
Solution B	> 600	V	
Needle Flame Test (1.00 mm)	Pass		IEC 60695-11-5
High Amp Arc Ignition (HAI)			UL 746
1.50 mm	PLC 0		
3.00 mm	PLC 0		
High Voltage Arc Tracking Rate (HVTR)			UL 746
1.50 mm	PLC 0		
3.00 mm	PLC 0		
Hot-wire Ignition (HWI)			UL 746
1.50 mm	PLC 3		
3.00 mm	PLC 2		
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm, All)	V-2		UL 94
Glow Wire Flammability Index (0.666 mm)	850	°C	IEC 60695-2-12
Injection	Nominal Value	Unit	
Processing (Melt) Temp	180 to 200	°C	
Mold Temperature	20.0 to 50.0	°C	
NOTE			
1.	Melt Temperature: 200°C		

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